DEVELOPMENT OF A GIS-BASED SOFTWARE PLATFORM FOR THE ASSESSMENT OF SEISMIC RISK IN ROMANIA

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ABSTRACT

The paper presents a software platform dedicated to the seismic risk assessment, developed in the framework of a Romanian national research project. Based on recent studies on seismic risk in Romania, carried out in the past years by some of the university members of the team, a new seismic risk assessment methodology, adapted for computer implementation, was developed. The platform integrates the use of geographical information systems (GIS) and of risk assessment modules. Data collection and management are performed by means of a specialized software module/application. The construction of the platform allows the separate functioning of component modules, so that operations can be performed by users with different competencies and situated at different spatial locations.

Keywords: seismic risk, GIS, seismic hazard, fragility curves, damage states